Contents of Volume 18

NUMBER 1 FEBRUARY 1989

Editorial 1

Obituary: Robert Tertian 3

Enhancement Effect as a Relative Excess Absorption 5
A. KUCZUMOW AND J. G. HOLLAND

Scanning Electron Microscopic Studies of Pore Formation in Mica Schist Insulating Brick 15
M. PATEL

Monte Carlo Simulation of Thin-Film X-Ray Microanalysis at High Energies 19
R. ROSA AND A. ARMIGLIATO

Fitness of Metallic Disc Samples for the Determination of Cerium in Cast Iron by X-Ray Emission Spectrometry 25
T. SOFILIC AND Da. MALJKOVIC

EDXRF Studies on the Variation in Elemental Concentrations of Ceramic Glazes 31
C. T. YAP

Repeated Intensity Measurements for X-Ray Fluorescence Analysis of Thin Samples and Evaluation of a Scattered Line as an Internal Standard 35
M. IWATSUKI, M. ITO, H. SHIMIZU, M. ENDO AND T. FUKASAWA

NUMBER 2 APRIL 1989

Editorial 43

Evaluation of the Armstrong–Buseck Correction for Automated Electron Probe X-Ray Microanalysis of Particles 45
H. M. STORMS, K. H. JANSSENS, S. B. TOROK AND R. E. VAN GRIEKEN

Recent Measurements of Long-Wavelength X-Rays Using Synthetic Multilayers 53
T. C. HUANG, A. FUNG AND R. L. WHITE

A Method of Correcting Dead Time and Pulse Pile-up Errors in Energy-Dispersive X-Ray Analysis 57
DIAO GUI-NIAN AND K. E. TURNER

Spectral Resolution of Crystals and Detectors in the X-Ray Region 63
A. KUCZUMOW AND J. A. HELSEN

Determination of X-Ray Fluorescence Sample Geometry from Compton Backscatter Energy 67
K. K. NIELSON, V. C. ROGERS AND R. SHUMAN

Analysis of Trace Elements in Hair of Pregnant Women Using XRF Spectrometry 73
S. TOMIC, J. LAKATOS AND V. VALKOVIC

Effect of Coster–Kronig Transitions on L_3 Sub-Shell X-Ray Fluorescence Cross-Sections 77
A. RANI, N. NATH AND S. N. CHATURVEDI

NUMBER 3 JUNE 1989

Papers from the Vienna EDXRF Workshop, Vienna, Austria, 13–15 July 1988

Guest Editor: Peter Wobrauschek

Editorial 85

Guest Editorial 87

Quantification of Continuous and Characteristic Tube Spectra for Fundamental Parameter Analysis 89
H. EBEL, M. F. EBEL, J. WERNISCH, Ch. POEHN AND H. WIEDERSCHWINGER

Quantitative X-Ray Fluorescence Analysis of Specimens with Rough Surfaces: Monte Carlo Approach 101
H. EBEL AND Ch. POEHN

Analysis of Metallic Shred: a Basic Experiment 105
M. MANTLER AND T. TAUT

Microbeam Technique for Energy-Dispersive X-Ray Fluorescence 109
A. RINDBY, P. ENGSTRÖM, S. LARSSON AND B. STOCKLASSA

Software for Energy-Dispersive X-Ray Fluorescence 113
A. RINDBY

Angular Dependence of X-Ray Fluorescence Intensities 119
D. K. G. de BOER

NUMBER 4 AUGUST 1989

Excitation of K X-Rays for a Wide Range of Elements ($25 \leq z \leq 82$) by Direct Interaction of Beta Particles from Phosphorus-32 133
J. J. LABRECQUE AND P. A. ROSALES

Determination of Tin in Silicate Rocks by Energy-Dispersive X-Ray Fluorescence Spectrometry 139
J. R. EVANS AND J. C. JACKSON

Enhancement Between Layers in Multiple-Layer Thin-Film Samples 143
J. E. WILLIS

Heterogeneity Effect and the Reliability of X-Ray Fluorescence Analytical Results: Study on Al_2O_3 Matrix with Calcium, Yttrium, Gadolinium and Thorium as Probe Elements 151
R. M. AGRAWAL AND S. K. KAPOOR

Quantitative Elemental Analysis of Thick Samples by XRF and PIXE 157
F. B. GIL, G. BARREIRA, M. F. GUERRA AND L. C. ALVES

Method for the Determination of the Phase Fractions in Solid Systems by X-Ray Microanalysis 165
R. STOYANCHEV

Influence of Non-Flat Sample Surface on α-Coefficients 173
A. KUCZUMOW AND J. A. HELSEN

Determination of the Various Phases of Aluminium in Steel by X-Ray Fluorescence Spectrometry 177
R. KLOCKENKAMPER AND K. H. KOCH

Short Communication
X-Ray Bremsstrahlung Spectra 183
M. A. SHORT AND E. J. BONNER

NUMBER 5 OCTOBER 1989

Contribution Due to Excitation by Scattered Photons in Measurements of L X-Ray Cross-sections 193
S. SINGH, D. MEHTA, S. KUMAR, M. L. GARG, N. SINGH, P. C. MANGAL AND P. N. TREHAN

Application of X-Ray Fluorescence Spectrometry to the Analysis of Geochemical Prospecting Samples in China 199
G. MA AND G. LI

Matrix Corrections for Quantitative Determination of Trace Elements in Biological Samples using Energy-Dispersive X-Ray Fluorescence Spectrometry 207
S. KUMAR, S. SINGH, D. MEHTA, M. L. GARG, P. C. MANGAL AND P. N. TREHAN

Determination of Manganese in High-Chromium Steels by X-Ray Fluorescence Spectrometry 211
RAJEEV AND J. MURALIDHAR

X-Ray Photoelectron Spectroscopic Studies on Silicon Carbide from Rice Husk 215
M. PATEL

EDXRF and XRD Studies on Alumina Fibre Using Natural Fibre as Substrate 219
M. PATEL, B. K. PADHI AND D. L. SASTRY

Determination of Y, Zr, Ba, La and Ce in Granitic Rocks using Energy-Dispersive X-Ray Fluorescence 225
G. S. LODHA, K. J. S. SAWHNEY AND V. M. CHOUBEY

Backscattering of 10–35 keV Electrons from Thick Targets at Normal Incidence 229
M. DEL GIORGIO, J. TRINCAVELLI AND J. A. RIVEROS

Semi-Empirical Schemes for X-Ray Attenuation Coefficients in the Context of PIXE 235
J. L. CAMPBELL AND D. DeFORGE

Short Communication
Wear and Tear Studies of Oil-Lubricated Machines Using Energy-Dispersive X-Ray Fluorescence Spectrometry 243
C. K. BHAT, D. KAUL, G. S. LODHA, R. KOUL AND K. J. S. SAWHNEY

NUMBER 6 DECEMBER 1989

From the Editor 251

Improved Laboratory X-Ray Source for Microfluorescence Analysis 253
D. A. CARPENTER

Theoretical Evaluation of the Effective Alpha and De Jongh Approaches in X-Ray Fluorescence Analysis of Geological Materials in Borax Glass Beads 259
L. M. MUIA AND R. VAN GRIEKEN

Use of ZAF and PAP Matrix Correction Models for the Determination of Carbon in Steels by Electron Probe Microanalysis 263
S. MANSOUR

Scanning Electron Microscopic Studies of Heat-treated Rice Husk 267
M. PATEL AND P. PRASANNA

XRF Intensity in the Frame of the Transport Theory 271
J. E. FERNANDEZ

Dependence of XRF Intensity on the Tilt of the Propagation Plane 281
J. E. FERNANDEZ AND M. RUBIO

Author Index 293